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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/663,923	09/18/2000	Takashi Noda	31762-166222	3888

26694 7590 06/17/2004

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EXAMINER	
SHEW, JOHN	

ART UNIT	PAPER NUMBER
2664	8

DATE MAILED: 06/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/663,923	NODA ET AL.	
	Examiner	Art Unit	
	John L Shew	2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *8-12,15,18 and 21* is/are allowed.

6)☒ Claim(s) *1-7,13-14,16-17 and 19-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3,4*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-7, 13-14, 16-17 and 19-20, are rejected under 35 U.S.C. 103(a) as being unpatentable over Guy et al. in view of Shaffer et al.

Claims 1, 4, 6, 13-14 and 16-17, Guy teaches a network interface apparatus (Figure 1) referenced by File Server 112, connecting a communication terminal (Figure 1) referenced by Phone 106, to an IP network (Figure 1, column 4 lines 54-64) referenced by Wide Area Network 104 such as the Internet, comprising an input circuit for receiving data to be transferred from the communication terminal (Figure 1, column 9 lines 66-67, column 10 lines 1-7) referenced by first telephone transmitting to a Key Telephone Set 110 which connects to input Phone FAX Server Card 202 via signal connection 107A, a transmitter for transferring a packet to the IP network (Figure 2) referenced by the Network Interface Card 218 transmitting packets to LAN 113 destined for Internet via

router 114, an interface circuit for interfacing said transmitter with the IP network (Figure 4, column 9 lines 41-53) referenced by NIC Interface Unit 420 converting packets to compatible LAN formats, a packetizer circuit for packetizing the data to be transferred into the packet (Figure 4, Figure 7) referenced by Network Packetizer 410 into Packet A format, an input circuit for capturing an image of a document and forming data to be transferred representing the image (Figure 1) referenced by FAX terminal 120.
Guy does not teach a control circuit operative to use delay information for controlling the packetizer to adjust the packet size. Schaffer teaches an apparatus to determine a delay in transmission between the IP network and said apparatus (FIG. 1, column 3 lines 10-15, 26-36) referenced by control program calculating the packet length based on end-to-end transmission delay, a control circuit operative in response to the delay information for controlling the packetizer / transfer rate (column 5, lines 39-42) referenced by a control program processing the end-to-end transmission delay to determine packet length where the packet length determines transfer rate since larger packets inherently takes longer to transfer .

Claims 2, 19 and 20, are rejected by claims 1, 4, 6, 13-14 and 16-17, above and by Schaffer's teaching a control circuit (FIG. 1) referenced by Control Program 12, comprises a memory circuit for storing packet size data representative of packet sizes (FIG. 4) referenced by flowchart which represents instructions resident on a memory circuit storage medium inclusive of packet size data from Calculate Packet Length step 52, for developing packet size data associated with the delay information (FIG. 4)

referenced by Transmit Test Packet step 48 and Receive Acknowledgement step 50 to determine delay information followed by Calculate Packet Length step 52 using delay information, adjusting the size of the packet in response to the packet size information (FIG. 4) referenced by Compress And Packetize Voice Information step 54, procedure for receiving data to be transferred from communication terminal (FIG. 4) referenced by More Voice Information step 58, determining a delay in transmission over the IP network (FIG. 4) referenced by Transmit Test Packet step 48 and Receive Acknowledgement step 50, packetizing the data to be transferred into a packet (FIG. 4) referenced by Compress and Packetize Voice Information step 54, adjusting a size of the packet on a basis of the delay determined (FIG. 4) referenced by Calculate Packet Length step 52, transferring the packet having the size adjusted to the IP network (FIG. 4) referenced by Transmit Test Packet step 48, adjusting a transfer rate of transferring the data on the basis of the delay determined (FIG. 4) referenced by Calculate Packet Length step 52 which inherently adjusts the transfer rate of the packet.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the network interface apparatus of Guy by the packet adjustment controller based on delay apparatus of Schaffer for the purpose of minimizing end-to-end delays caused by network traffic and network topology between two IP devices.

Claims 3, 5 and 7, are rejected by claims 1-2, 4, 6, 13-14, 16-17, 19 and 20 above and by Guy's teaching an apparatus comprising a receiver for receiving a packet transmitted over the IP network (Figure 2) referenced by Network Interface Card 218 of File Server 123 which is identical to File Server 112, an output circuit for depacketizing the packet into data (Figure 4, column 15 lines 21-27) referenced by Network Packetizer 410 receiving a packet removing the header and transmitting the packet to the Digital Voice Module 208, an output circuit for outputting the transmitted data to the communication terminal (Figure 1, Figure 2) referenced by Channel 2 Analog Interface 204B of the Phone FAX Server Card 202 which connects to a phone 118, said control circuit being further interconnected between receiver and output circuit (Figure 2, Figure 3) referenced by Digital Voice Module 208, to adjust a transfer rate of outputting the transmitted data on a basis of delay information (Figure 3, column 15 lines 43-48) referenced by use of the Jitter Buffer 316 to adjust for delays.

Allowable Subject Matter

2. Claims 8-12, 15, 18 and 21 are allowed. The prior art search did not disclose the use of packet coupling in determination of inhibiting a packetizer circuit for data transfer.

Citation of Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Patent 6360271, Schuster discloses a system for dynamic jitter buffer management. Patent 6646987, Qaddoura discloses a system of TCP packet recovery using packet size adjustment for throughput. Patent 6646986, Beshai discloses a system of scheduling variable sized packets under transfer rate control. Patent 5296934, Ohsuki discloses FAX terminal concentration equipment with remote operation. Patent 6359877, Rathonyi discloses a method for minimizing overhead in a communication system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John L Shew whose telephone number is 703-305-8708. The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 703-305-4366. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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